

**BC Science 10****Practice Exam B**

**Instructions:** For each question, select the **best** answer and record your choice.

Refer to the BC Science 10 data pages as necessary.

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1. Which of these components of an ecosystem are examples of abiotic factors??

I	soil, rain
II	fungi, bacteria
III	plants, animals
IV	sunshine, temperature

- A. I and II  
B. I and IV  
C. II and III  
D. III and IV
- 

**Use the following information to answer the question.**

Western red squirrels of British Columbia eat an underground fungus that grows near the roots of trees.

After eating the fungus, the squirrels deposit their droppings containing the fungal spores over the forest floor. The squirrels' droppings promote growth of the fungus, which in turn supports the growth of young tree saplings.

2. This is an example of which kind of relationship?
- A. commensalism  
B. parasitism  
C. predation  
D. mutualism

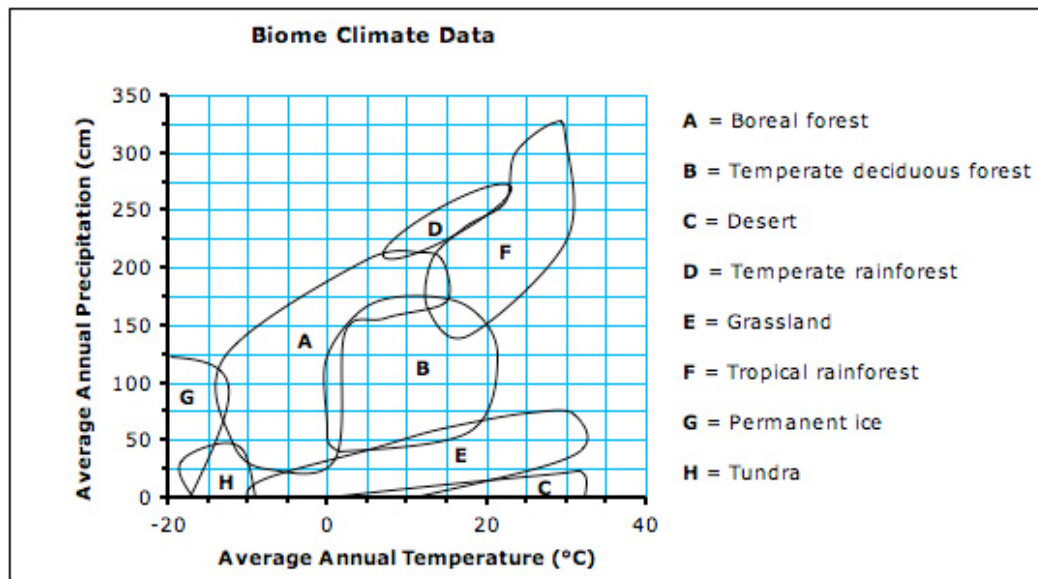
3. An experiment was undertaken to determine the effect of sunlight on plant growth (as measured by the plant's mass). The following results were obtained:

Hours of Sunlight per Day	Plant Mass (g)
0	3
6	4.5
12	21.2
18	44.5
24	35.8

Which of the following conclusions is best supported by this data?

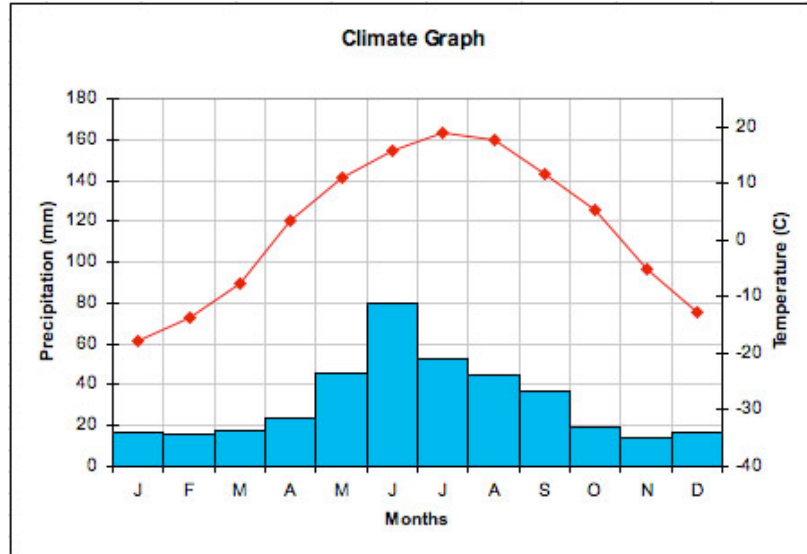
- A. Sunlight is necessary for plant growth.
- B. Plants need at least 12 hours of sunlight per day.
- C. Too much sunlight can be harmful to plant growth.
- D. The more sunlight a plant gets, the more they grow.

**Use the climate graph below to answer the following question.**



4. What type of biome occurs in a region that has an average annual rainfall of 100 cm and an average annual temperature of 10°C?
- A. desert
  - B. boreal forest
  - C. permanent ice
  - D. temperate deciduous forest

5. Which biome is represented by the data in the climatograph below?



- A. tundra  
 B. grassland  
 C. boreal forest  
 D. tropical rainforest
6. Which division of the biosphere is illustrated in the scene below?



- A. ecosystem  
 B. population  
 C. biosphere  
 D. biome

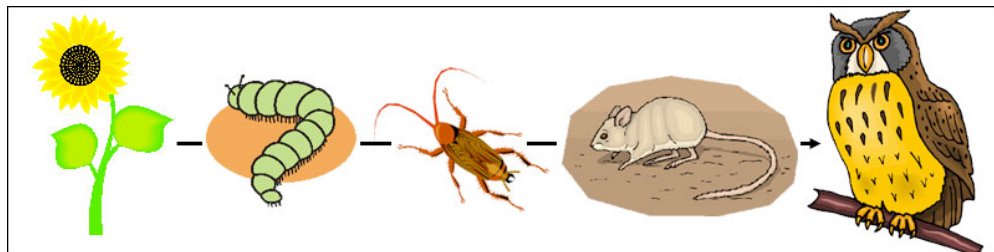
Use this image to answer the following question.



7. What process provides energy for the seaweed to live and grow?

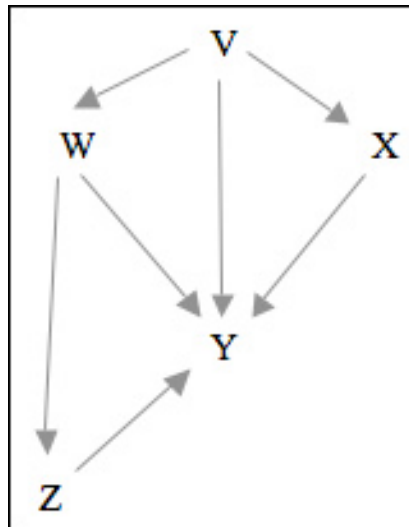
- A. mutualism
- B. commensalism
- C. photosynthesis
- D. bioaccumulation

8. In this diagram of a food chain, which level of consumer is represented by the caterpillar?



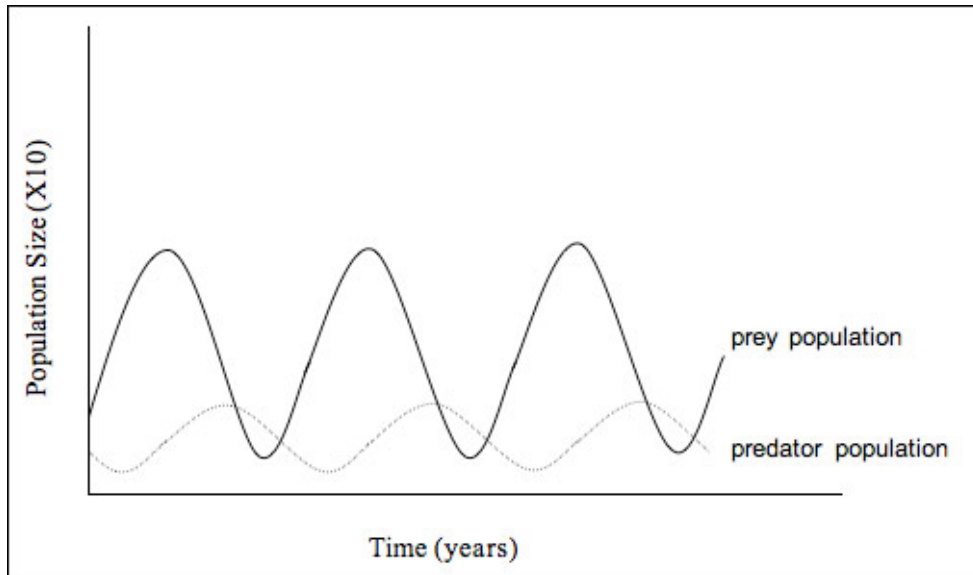
- A. secondary consumer
- B. primary consumer
- C. tertiary consumer
- D. primary producer

Use the following food web to answer this question.



9. In this diagram of a food web, which letter is most likely to represent a decomposer?
- A. V
  - B. X
  - C. Y
  - D. Z
- 
10. In a forest ecosystem, a kind of green algae produces food for the fungus in which the algae shelters. What kind of relationship exists between the algae and the fungus?
- A. predation
  - B. mutualism
  - C. parasitism
  - D. commensalism
11. Which of the following terms applies to the organism that is harmed in a parasitic relationship?
- A. predator
  - B. parasite
  - C. prey
  - D. host

Use this graph to answer the question.



12. Which of the following best explains why the prey population and the predator population peak at different times?
- A. The prey population falls when there are few predators.
  - B. The predator population falls when there are many prey.
  - C. The predator population grows when there are few prey.
  - D. The prey population grows when there are few predators.
- 
13. In a food chain, what percentage of the energy passes from one trophic level to the next?
- A. 10%
  - B. 50%
  - C. 90%
  - D. 100%
14. If there are 500 000 kcal of energy in the producer level of a food pyramid, how much energy would be present in the herbivores?
- A. 5000 kcal
  - B. 50 000 kcal
  - C. 450 000 kcal
  - D. 495 000 kcal

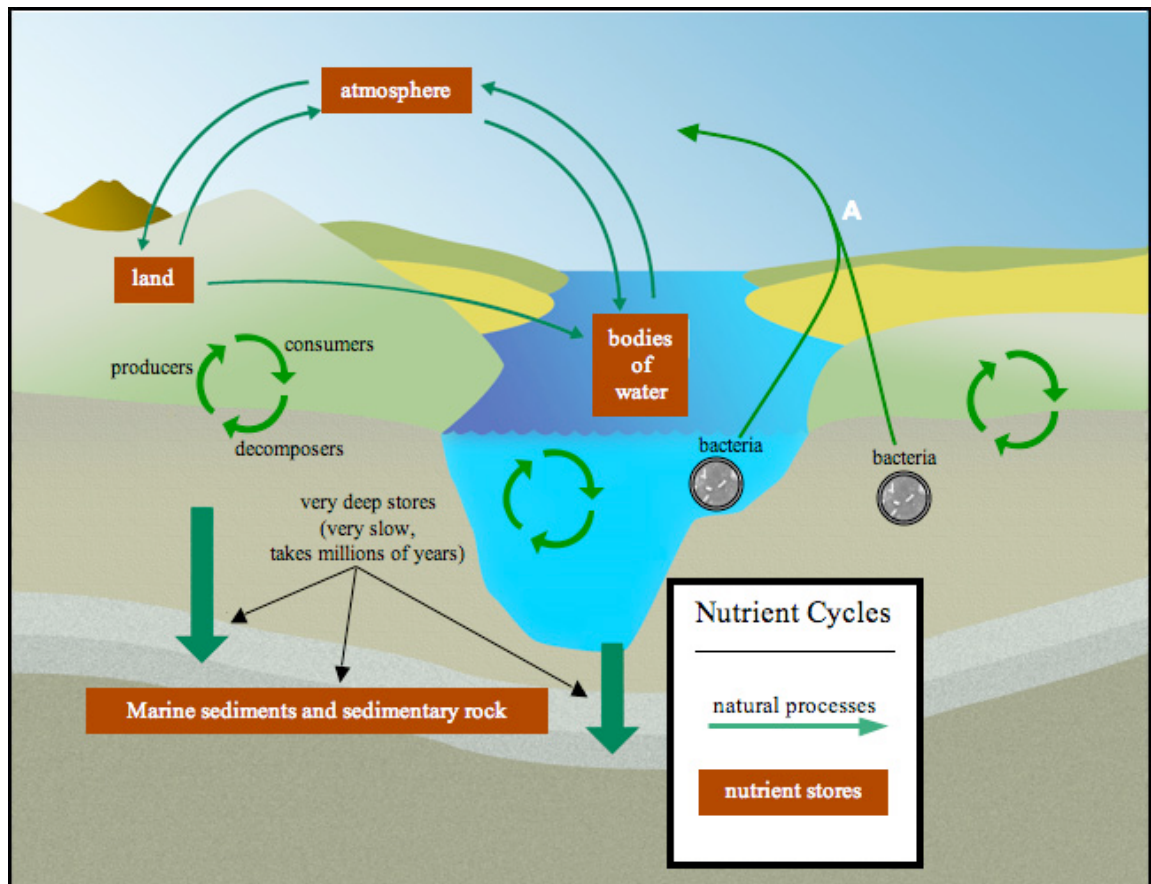
15. What direct role does photosynthesis play in the carbon cycle?
- A. Photosynthesis releases carbon into the atmosphere.
  - B. Photosynthesis absorbs oxygen from the atmosphere.
  - C. Photosynthesis absorbs carbon from the atmosphere.
  - D. Photosynthesis releases oxygen into the atmosphere.
16. Which of the following events illustrates the effect of human activity on the carbon cycle?
- A. The amount of CO<sub>2</sub> in the atmosphere is rising rapidly.
  - B. Volcano eruptions are becoming more frequent and violent.
  - C. The size of carbon stores in oil and gas deposits is rising rapidly.
  - D. Farmed vegetation is contributing less CO<sub>2</sub> to the atmosphere than did the natural vegetation.
17. Which of these human activities is known to cause algae blooms such as the one in the photo?



- A. coal mining
- B. clear-cut logging
- C. the burning of fossil fuels
- D. the use of chemical fertilizers



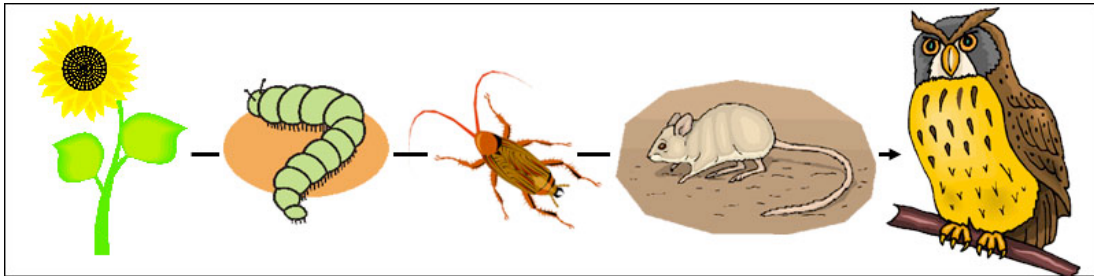
Refer to the diagram to answer this question.



18. What is the name of the process, labelled A, that returns nitrogen to the atmosphere from the land and oceans?
- A. nitrification
  - B. denitrification
  - C. nitrogen fixation
  - D. atmospheric fixation



19. Which organism in this food chain is **least** affected by the bioaccumulation of heavy metals?



- A. plant
- B. mouse
- C. caterpillar
- D. cockroach

When pine needles fall into streams and lakes, the needles provide very little nutrition to aquatic plants. However, when leaves of deciduous plants and trees fall into streams and lakes, they provide much more nutrition for aquatic plants, insects, and fish. Therefore it's advantageous to the biology of streams and fisheries to have frequent fires clear the pine trees from stream banks and shorelines, leaving the land free to support grasses and deciduous species such as aspen, willow, and oak.

from *Yellowstone Trivia* p. 54 by Janet Spencer.  
Riverbend Publishing, Helena, Montana. 2006.

20. The deciduous species that grow up after a forest fire are an example of which of the following?
- A. secondary succession
  - B. primary succession
  - C. mature community
  - D. pioneer species

According to atomic theory, the following statements are true:

- Protons are positive subatomic particles found in the nucleus of an atom.
- Neutrons are neutral subatomic particles found in the nucleus of an atom.
- Electrons are negative subatomic particles found in the nucleus of an atom.
- The atomic number of an atom refers to the number of protons found in the atom's nucleus.
- The mass number of an atom refers to the total number of subatomic particles found in the atom's nucleus.
- The atomic mass of an atom is the total of the protons, neutrons and electrons that make up an atom.
- Atoms are neutral. They contain an equal number of positively charged protons and negatively charged electrons.

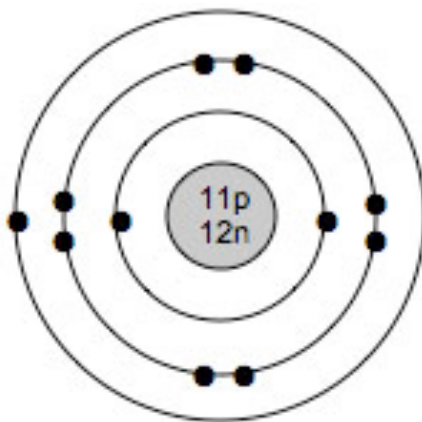
21. Based on the information above, which of the following statements about the structure of any neutral atom is correct?

- A. atomic number = number of electrons
- B. number of protons = number of neutrons
- C. number of electrons = mass number
- D. atomic number = mass number

22. Which of the following describes the  $\text{Al}^{3+}$  ion?

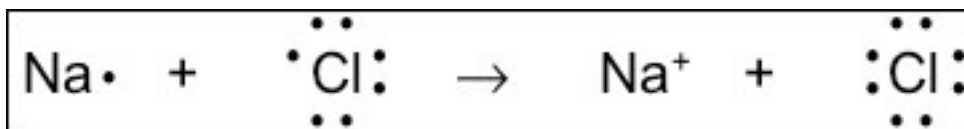
- A. 13 protons, 10 electrons
- B. 13 protons, 13 electrons
- C. 13 protons, 16 electrons
- D. 27 protons, 24 electrons

23. Which of the following Lewis diagrams illustrates the same element as this Bohr diagram?



- A. **K** •  
 B. **Li** •  
 C. **Na** •  
 D. • **Na** •
- 

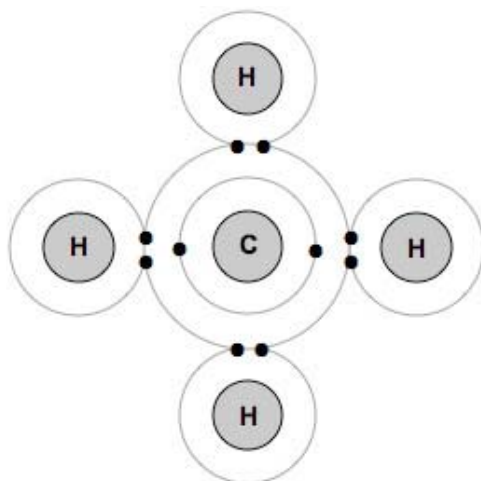
24. What type of bonding is illustrated in this diagram?



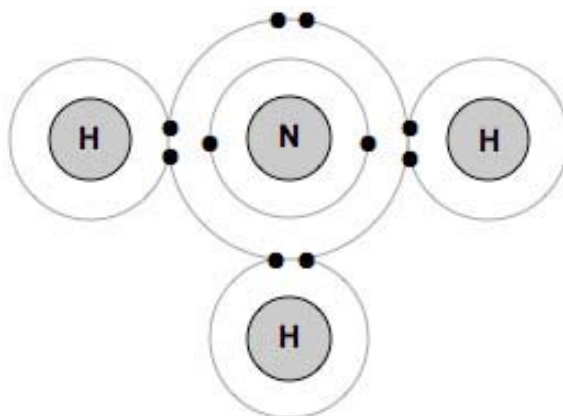
- A. diatomic  
 B. covalent  
 C. Lewis  
 D. ionic

25. Examine the Bohr diagrams below. Which compound has only one lone pair of electrons?

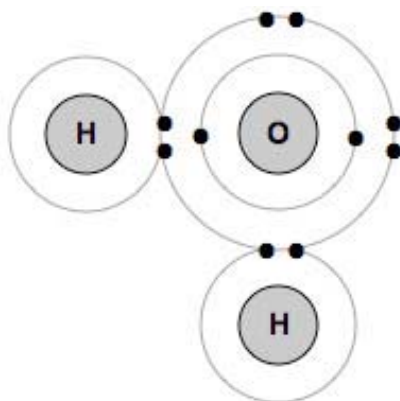
A.



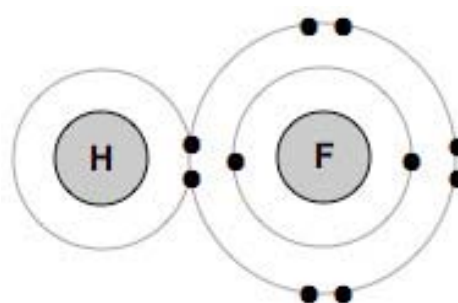
B.



C.



D.



26. Which of the following compounds contains a covalent bond?

- A.  $\text{SO}_2$
- B.  $\text{FeCl}_3$
- C.  $\text{NaOH}$
- D.  $\text{MgBr}_2$

27. What information is included in the name of a covalent compound that is not included in the name of an ionic compound?
- A. The kind of atoms in the compound.
  - B. The charge on the ions in the compound.
  - C. The valence of the ions in the compound.
  - D. The number of atoms of each element in the compound.
28. Which of the following correctly classifies each formula as an acid, base, or salt?

	Acid	Base	Salt
I	NaBr	HNO <sub>3</sub>	Mg(OH) <sub>2</sub>
II	HClO	HClO <sub>2</sub>	HClO <sub>3</sub>
III	HI	Mg(OH) <sub>2</sub>	H <sub>2</sub> CO <sub>3</sub>
IV	HBr	Ca(OH) <sub>2</sub>	MgCl <sub>2</sub>

- A. I
  - B. II
  - C. III
  - D. IV
29. Which of the following is the same as a period in the periodic table?
- A. row
  - B. group
  - C. family
  - D. column

30. Four unknown substances, W, X, Y, and Z, were observed to have these properties:

Unknown	Colour in bromothymol blue	Turns litmus paper	Conducts electricity
W	green	no change	no
X	blue	from red to blue	yes
Y	yellow	from blue to red	yes
Z	green	no change	yes

Drain cleaners are caustic substances that break down materials trapped in pipes. Which of these unknown substances could be a drain cleaner?

- A. W
- B. X
- C. Y
- D. Z

31. Samples of three different elements X, Y, and Z from the same period were placed in water. The following observations were noted.

Sample X	no visible change
Sample Y	sparks, smoke, fizzing, and flames
Sample Z	mild fizzing

Which sample was an alkaline earth metal?

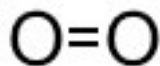
- A. X
- B. Y
- C. Z
- D. Y and Z



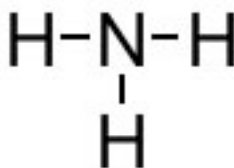
32. What is the name of the compound  $\text{Cs}_2\text{S}$ ?
- A. cesium sulfate
  - B. cesium sulfide
  - C. cesium monosulfate
  - D. dicesium monosulfide
33. In the chemical name iron (II) oxide, what is the meaning of the Roman numeral?
- A. the charge on the iron ion
  - B. the charge on the oxygen ion
  - C. the number of iron ions in the compound
  - D. the number of oxygen ions in the compound

34. Which of the following models represents an organic compound?

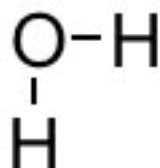
A.



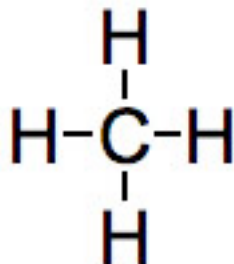
B.



C.



D.



- 
35. Which of the following will form a basic solution when dissolved in water?
- A.  $\text{Na}_2\text{O}$
  - B.  $\text{NO}_2$
  - C.  $\text{PO}_4$
  - D.  $\text{SO}_3$

36. Which of the following equations represent a synthesis reaction?

I	$2\text{Cu} + \text{O}_2 \rightarrow 2\text{CuO}$
II	$2\text{NaCl} \rightarrow 2\text{Na} + \text{Cl}_2$
III	$\text{Cl}_2 + 2\text{CsBr} \rightarrow 2\text{CsCl} + \text{Br}_2$
IV	$2\text{Ti} + 3\text{Cl}_2 \rightarrow 2\text{TiCl}_3$

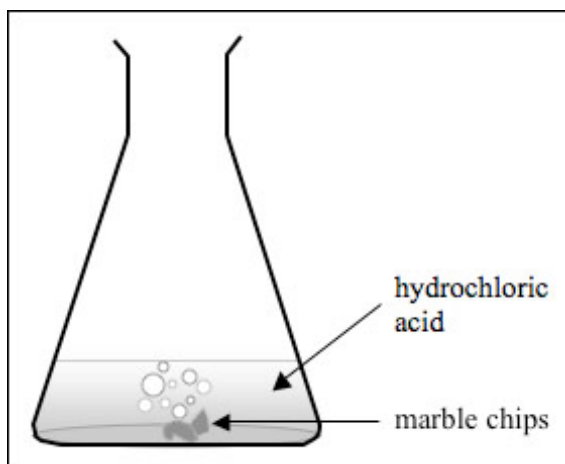
- A. I only  
B. I and IV  
C. I, II, and IV  
D. II and III
37. In a double replacement reaction, potassium sulfate reacts with silver nitrate. In the balanced chemical equation that describes this reaction, what coefficient must be placed in front of the formula for silver nitrate?
- A. 1  
B. 2  
C. 3  
D. 4
38. When octane, a major component of gasoline, is burned in a car engine, the reaction is



Which of the following products would balance the equation?

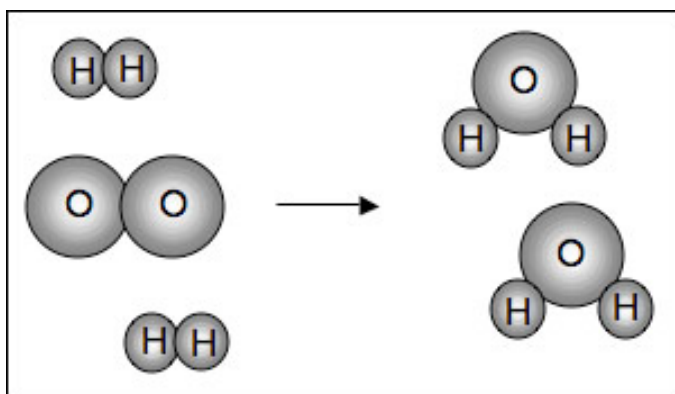
- A.  $2\text{H}_2\text{O} + 8\text{CO}_2$   
B.  $11\text{H}_2\text{O} + 16\text{CO}_2$   
C.  $18\text{H}_2\text{O} + 16\text{CO}_2$   
D.  $50\text{H}_2\text{O} + 4\text{CO}_2$

39. Hydrochloric acid reacts with marble chips (chunks of calcium carbonate) to produce bubbles of carbon dioxide gas. Which of the following situations will produce the most carbon dioxide in the shortest amount of time?



- A. dilute acid, large chips, 40°C
- B. dilute acid, small chips, 70°C
- C. concentrated acid, large chips, 40°C
- D. concentrated acid, small chips, 70°C

**Use the following graphic to answer the question.**

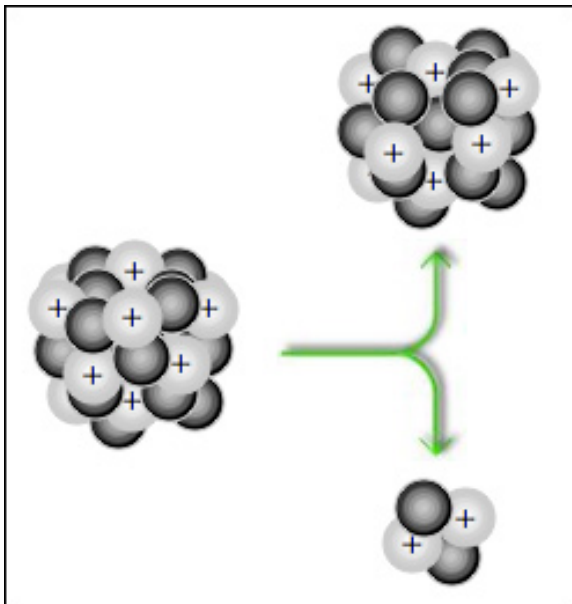


40. What chemical principle is illustrated in this graphic?
- A. law of conservation of mass
  - B. law of conservation of velocity
  - C. law of conservation of molecules
  - D. law of conservation of momentum

41. What isotope has 16 protons and 19 neutrons?

- A. sulfur-16
- B. sulfur-35
- C. potassium-19
- D. potassium-35

42. What kind of nuclear decay is illustrated in this diagram?

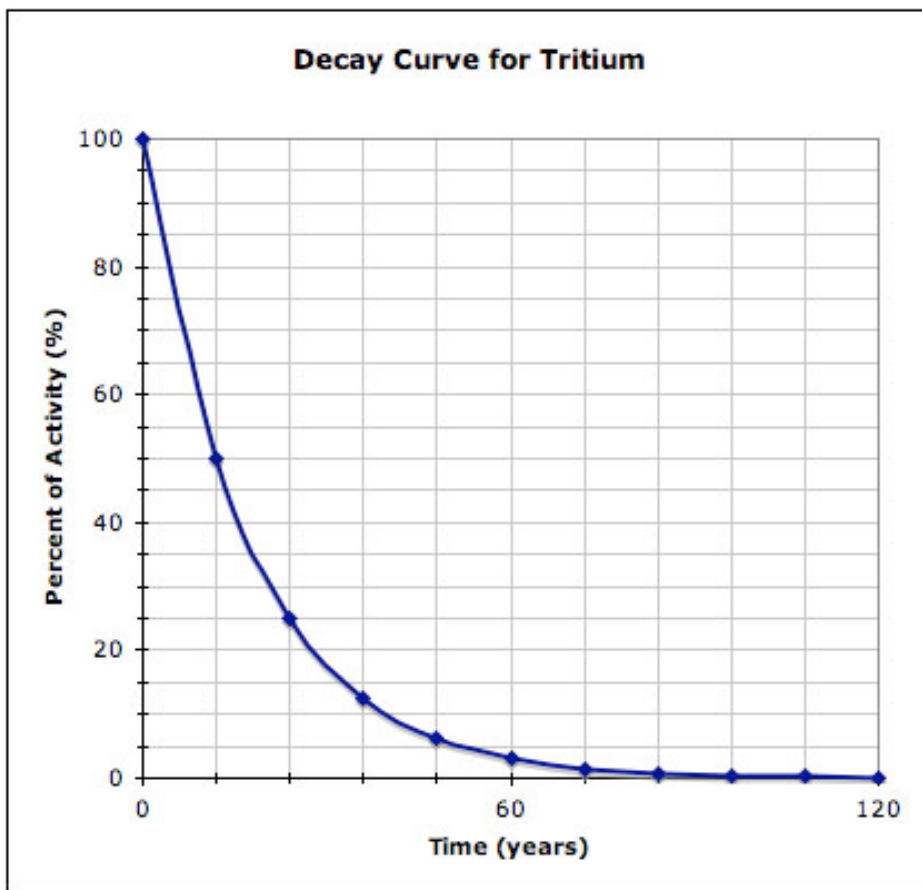


- A.  $\gamma$
- B. alpha
- C. beta
- D. gamma

43. Which of the following equations represents a balanced fusion reaction?

- A.  ${}_{92}^{235}\text{U} \rightarrow {}_{56}^{141}\text{Ba} + {}_{36}^{92}\text{Kr} + \text{energy}$
- B.  ${}^2_1\text{H} + {}^3_1\text{H} \rightarrow {}^4_2\text{He} + {}^0_{-1}e + \text{energy}$
- C.  ${}^2_1\text{H} + {}^3_1\text{H} \rightarrow {}^4_2\text{He} + {}^1_0n + \text{energy}$
- D.  ${}^1_0n + {}_{92}^{235}\text{U} \rightarrow {}_{56}^{141}\text{Ba} + {}_{36}^{92}\text{Kr} + 3 {}^1_0n + \text{energy}$

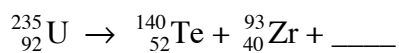
44. Consider the following graph showing the decay curve for tritium, a radioactive isotope of hydrogen.



What is the half-life of tritium?

- A. 12 y
- B. 60 y
- C. 12%
- D. 50%

45. Which of the following balances the nuclear reaction shown?

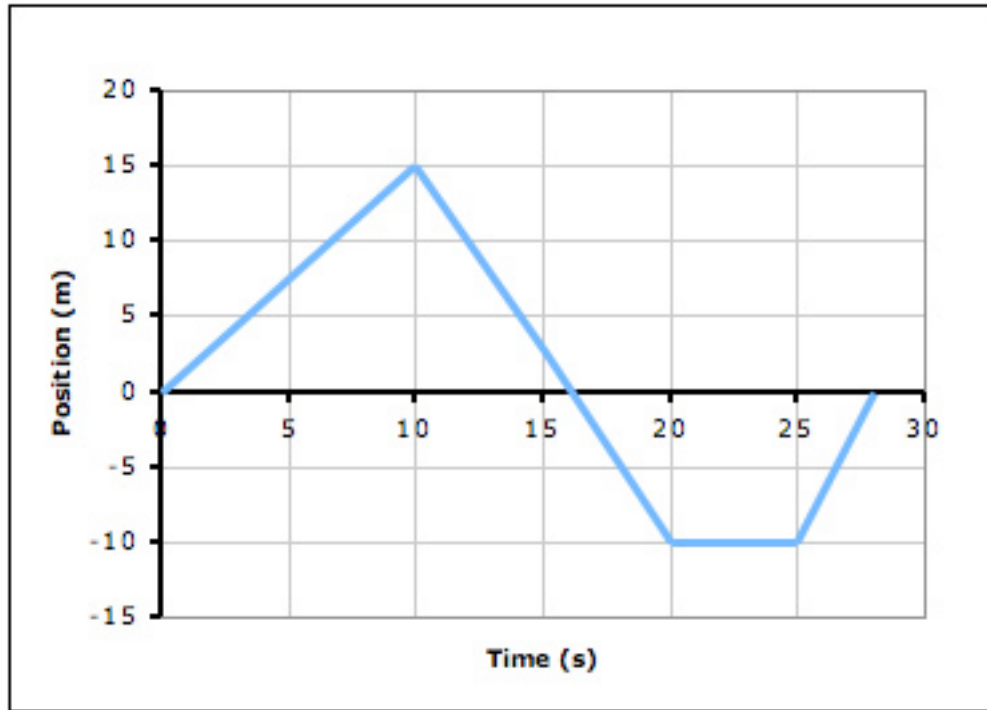


- A. one proton
- B. one neutron
- C. two neutrons
- D. two protons

46. Which of the following is a displacement?
- A. 55 km
  - B. 55 km/h
  - C. 55 km [E]
  - D. 55 km/h [E]
47. If a position vs. time graph forms a straight line (in any direction), what conclusion can be drawn?
- A. The object has zero acceleration.
  - B. The object has positive acceleration.
  - C. The object has negative acceleration.
  - D. The object's acceleration was changing.
48. Which of the following is true of an object that is moving with zero acceleration?
- A. Its velocity is not changing.
  - B. Its velocity is zero in either direction.
  - C. Its velocity is increasing in a positive direction.
  - D. Its velocity is increasing in a negative direction.



Use the graph below to answer the following two questions.



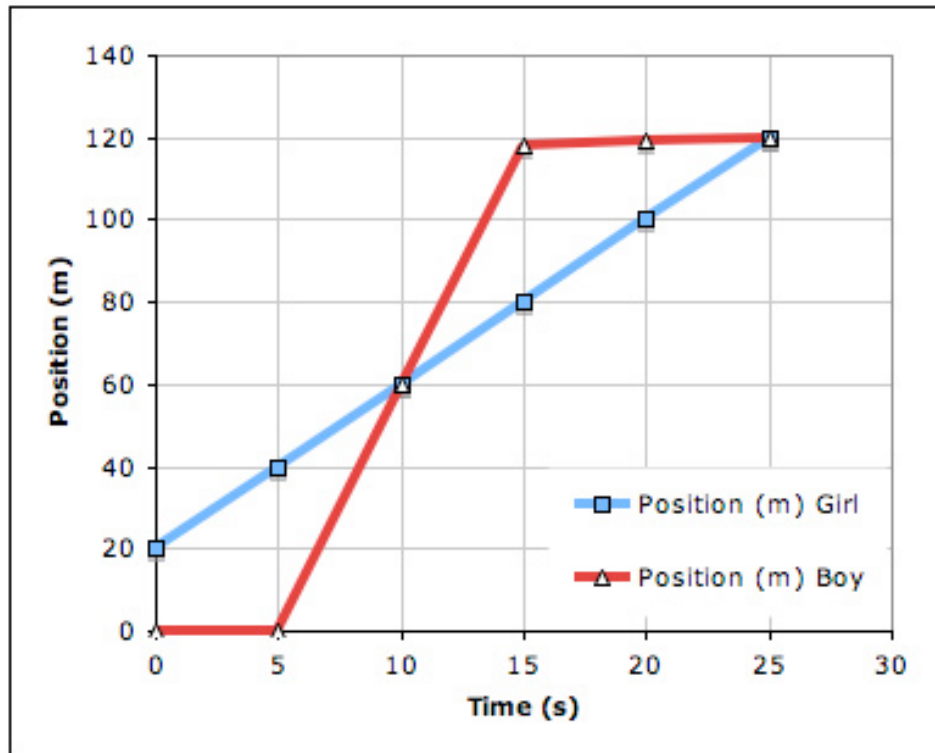
49. During what time interval is the velocity negative?

- A. 20 s to 25 s
- B. 10 s to 20 s
- C. 0 s to 20 s
- D. 0 s to 10 s

50. What is the average velocity between 10 and 20 s?

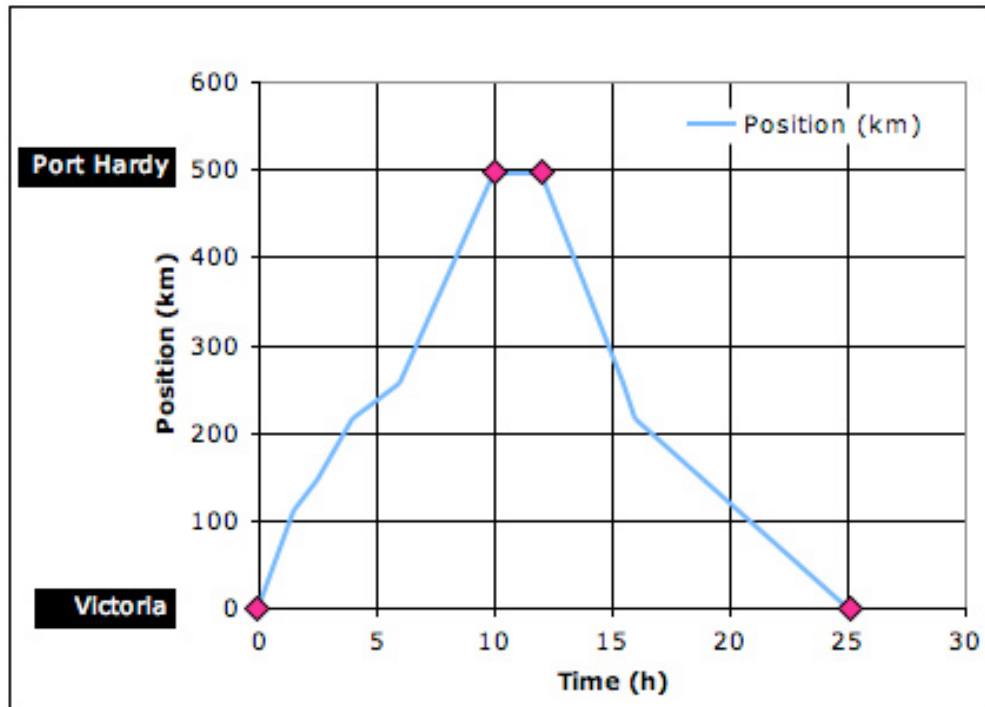
- A. 2.5 s
- B. 2.5 m/s
- C. -2.5 m
- D. -2.5 m/s

Use the graph below to answer the following two questions.



51. The graph represents the motion of a boy and girl in a footrace. At what position in the race did the boy overtake the girl?
- A. 60 m
  - B. 120 m
  - C. 10 s
  - D. 15 s
52. The graph represents the motion of a boy and girl in a footrace. Over the entire duration of the race, who has the greater average velocity and what is it?
- A. girl; 4.0 m/s
  - B. boy; 6.0 m/s
  - C. girl; 4.8 m/s
  - D. boy; 4.8 m/s

Use the graph below to answer the following question.

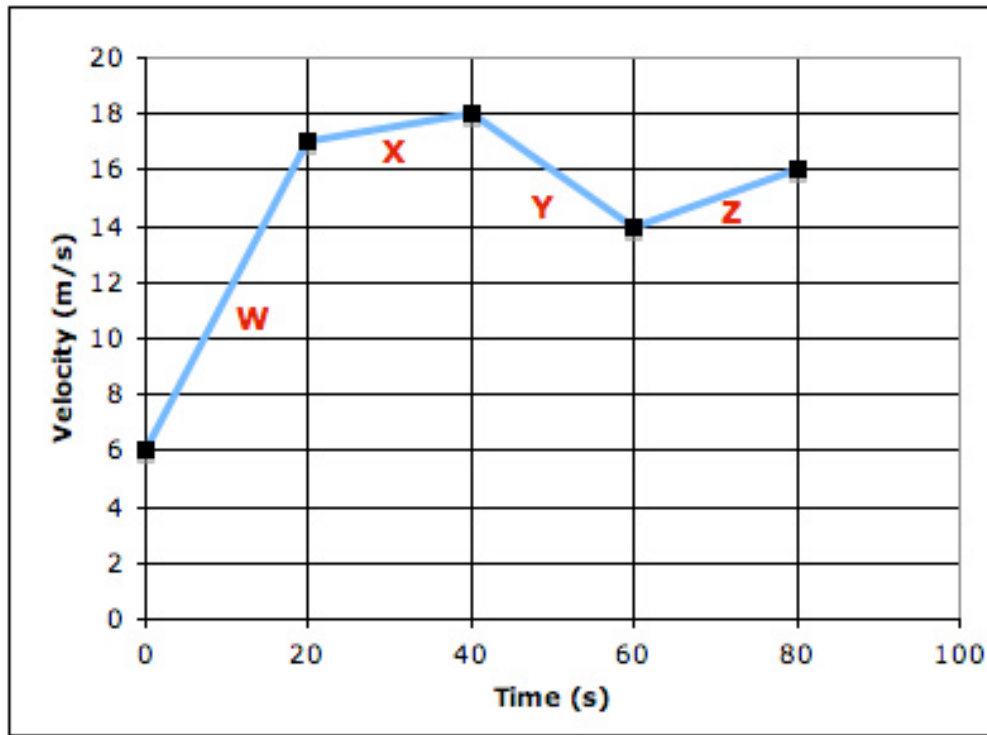


A student took a road trip last summer and visited several cities on Vancouver Island. The graph above represents his travels.

53. What was his total displacement?
- A. 0 km
  - B. 25 km
  - C. 500 km
  - D. 1000 km
- 
54. Which of the following illustrates negative acceleration?
- A. a car travelling +5 km/h
  - B. a car travelling -5 km/h
  - C. a car decreasing in speed from 80 km/h to 50 km/h
  - D. a car decreasing in speed from -80 km/h to -50 km/h

Use the graph below to answer the following question.

The following graph shows an object's velocity at given times.



55. During which of the 20 s time intervals was the acceleration positive?

- A. Y
- B. W, X, Y, Z
- C. W, X, Z
- D. W, Z

56. Under what conditions is an accelerating object slowing down?

- A. when the acceleration is in the same direction as the initial velocity
- B. when the acceleration is opposite to the direction of motion
- C. when the final velocity is larger than the initial velocity s
- D. when the displacement in each time interval increase

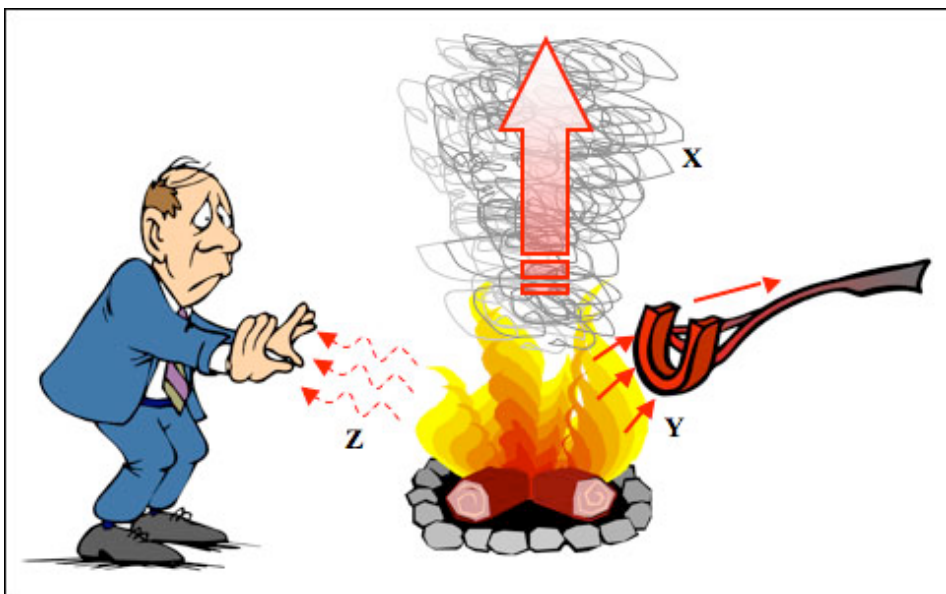
57. Which of the following is a unit of acceleration?
- A.  $\text{km/h}^2$
  - B.  $\text{km/h}$
  - C.  $\text{m/s}$
  - D.  $\text{v/t}$
58. A pitcher throws the ball toward the plate with a velocity of  $-20 \text{ m/s}$  and the batter hits it. It leaves the bat with a velocity of  $+25 \text{ m/s}$  in just  $0.006 \text{ s}$ . What is the acceleration of the ball?
- A.  $-833 \text{ m/s}^2$
  - B.  $-5 \text{ m/s}^2$
  - C.  $0.27 \text{ m/s}^2$
  - D.  $7500 \text{ m/s}^2$
59. A car travels at  $12 \text{ m/s}$  and then accelerates at a rate of  $5 \text{ m/s}^2$  for  $4 \text{ s}$ . What is the car's final velocity?
- A.  $32 \text{ m/s}$
  - B.  $21 \text{ m/s}$
  - C.  $20 \text{ m/s}$
  - D.  $17 \text{ m/s}$
60. A coin is flipped into the air at  $19 \text{ m/s}$ . How long does it take for the coin to reach its maximum height? Acceleration due to gravity is  $-9.8 \text{ m/s}^2$ .
- A.  $-1.9 \text{ s}$
  - B.  $186.2 \text{ s}$
  - C.  $1.9 \text{ s}$
  - D.  $0.5 \text{ s}$

61. Consider the water in two objects; a teacup and a bathtub. Both contain water at a temperature of  $40^{\circ}\text{C}$ .

Which of the following is true?

- A. The teacup loses more heat than the bathtub.
- B. The teacup has less thermal energy than the bathtub.
- C. The bathtub has a higher average kinetic energy than the teacup.
- D. The teacup and the bathtub have the same amount of thermal energy.

62. Identify the types of heat transfer illustrated in the diagram below.



- A. Y is convection; Z is conduction.
- B. X is conduction; Y is convection.
- C. Y is conduction; Z is convection.
- D. X is convection; Y is conduction.

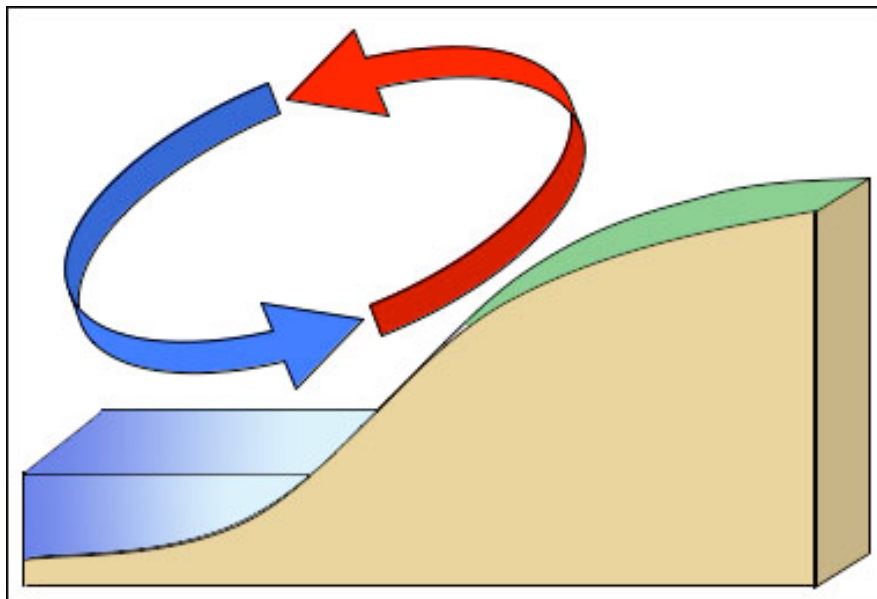
63. Which of the following is **not** an important source of thermal energy on Earth?

- A. the Sun
- B. forest fires
- C. radioactive decay
- D. residual thermal energy from Earth's formation



64. Which instrument is used to measure atmospheric pressure?
- A. seismometer
  - B. thermometer
  - C. barometer
  - D. ammeter
65. If the air pressure is dropping, what kind of weather is expected?
- A. windy and wet
  - B. windy and dry
  - C. calm and wet
  - D. calm and dry
- 

**Use this diagram showing local winds at an ocean shore to answer the following question.**



66. What time of day is illustrated, and how do you know?
- A. day; ocean heats up faster than land
  - B. day; land heats up faster than ocean
  - C. night; land cools faster than ocean
  - D. night; ocean cools faster than land
-

67. In the tropics, the prevailing winds near the Earth's surface blow toward the equator. Why is this so?
- A. Heating near the equator causes warm air to rise.
  - B. The spinning of the earth forces the winds towards the equator.
  - C. Heating at higher latitudes causes air to move toward the equator.
  - D. Heating at higher altitudes causes air to move toward the equator.
- 

**Use the picture to answer this question.**



*photo courtesy NASA*

68. Hurricane Frances, as observed from space, formed a structure that we recognize as a hurricane, also known as a tropical cyclone. Based on what can be observed in this photograph, which of the following statements about hurricane Frances is true?
- A. The hurricane is in the southern hemisphere and has a clockwise rotation.
  - B. The hurricane is in the northern hemisphere and has a clockwise rotation.
  - C. The hurricane is in the northern hemisphere and has a counter-clockwise rotation.
  - D. The hurricane is in the southern hemisphere and has a counter-clockwise rotation.

69. Human activity does not have a significant effect on the amount of which of these greenhouse gases?

- A. methane
- B. nitrous oxide
- C. water vapour
- D. carbon dioxide

70. Which of the following are examples of the effects of climate change in Canada?

I.	heavier spring rains
II.	increasing levels of CO <sub>2</sub> in the atmosphere
III.	areas of permafrost are shrinking

- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II, and III

71. What process causes movement of tectonic plates?

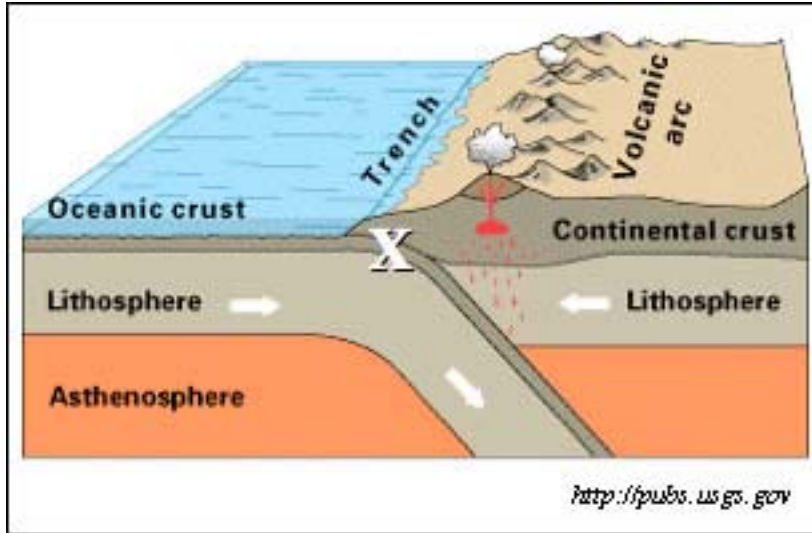
- A. compression of the inner core
- B. earthquakes in the lithosphere
- C. magnetic reversals in the crust
- D. convection currents in the mantle

72. On a tectonic map, what does this symbol mean?



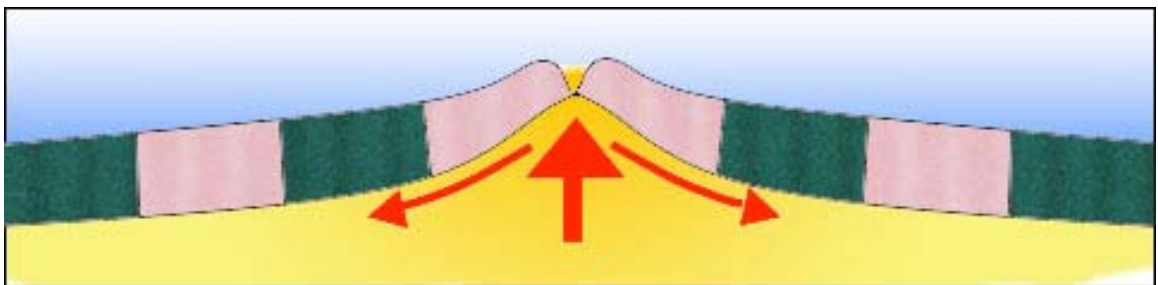
- A. convergent boundary
- B. transform boundary
- C. divergent boundary
- D. transform fault

73. What process is occurring at position X?



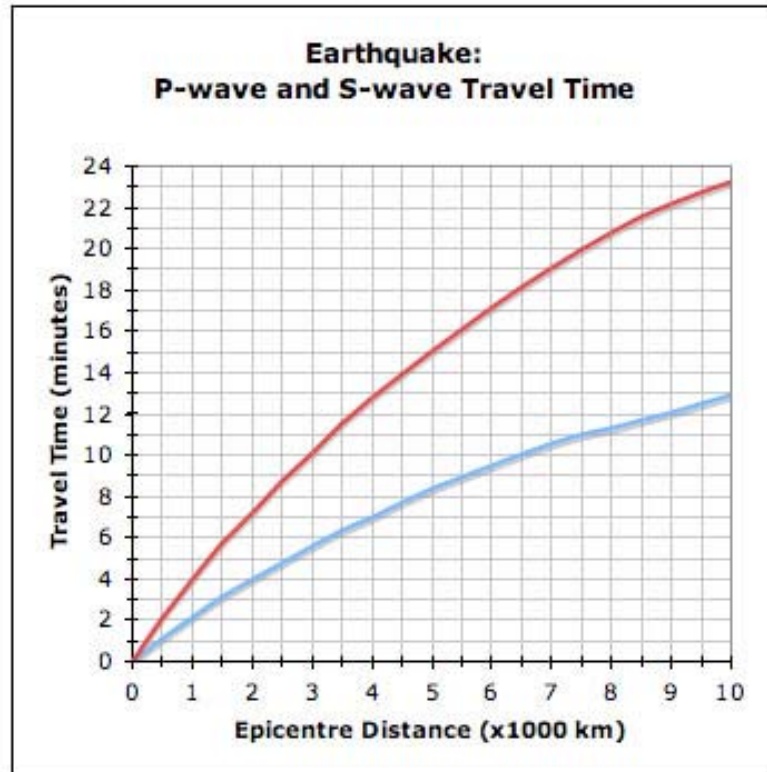
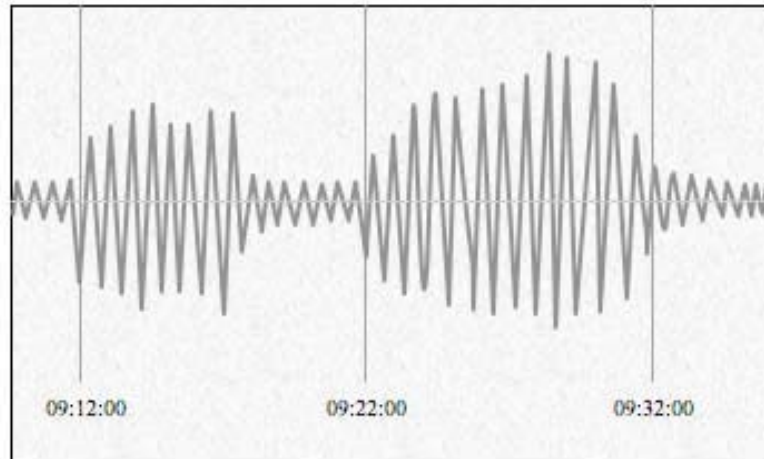
- A. sea floor spreading
- B. subduction
- C. ridge push
- D. volcanism

74. The magnetic striping evident in this diagram is characteristic of which kind of boundary?



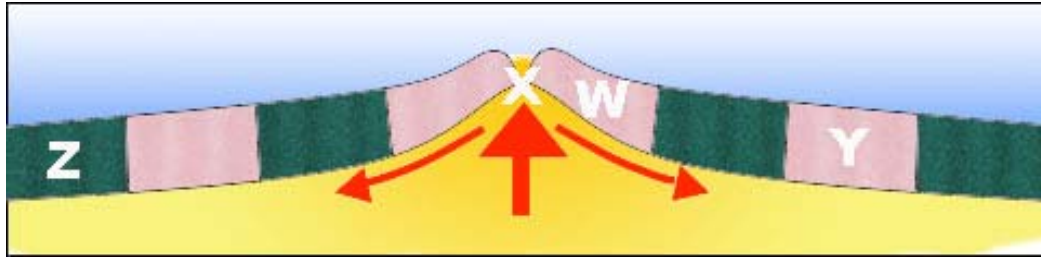
- A. convergent
- B. subduction
- C. transform
- D. divergent

This seismogram shows the arrival of a P and an S wave at a seismic station. The S wave arrived 10 min after the P wave.



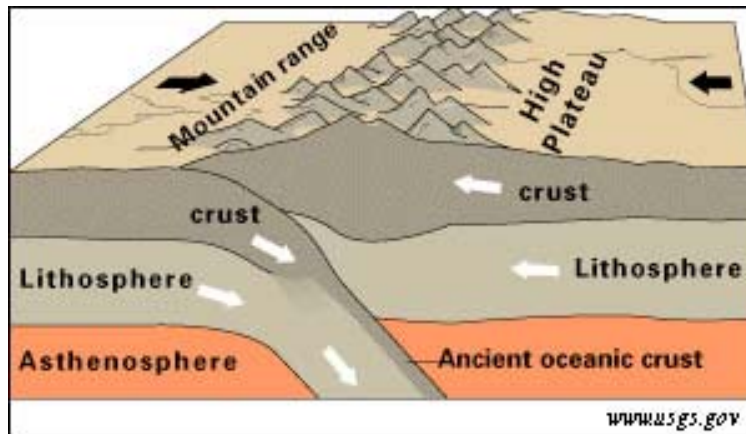
75. According to the time-distance graph above, how far away from the seismic station was the epicentre of the earthquake?
- A. 3000 km
  - B. 6500 km
  - C. 8800 km
  - D. 10 000 km

76. This is a diagram of a spreading ridge. Which letter represents the oldest rock?



- A. W
- B. X
- C. Y
- D. Z

77. What type of plate convergence is shown in this diagram?



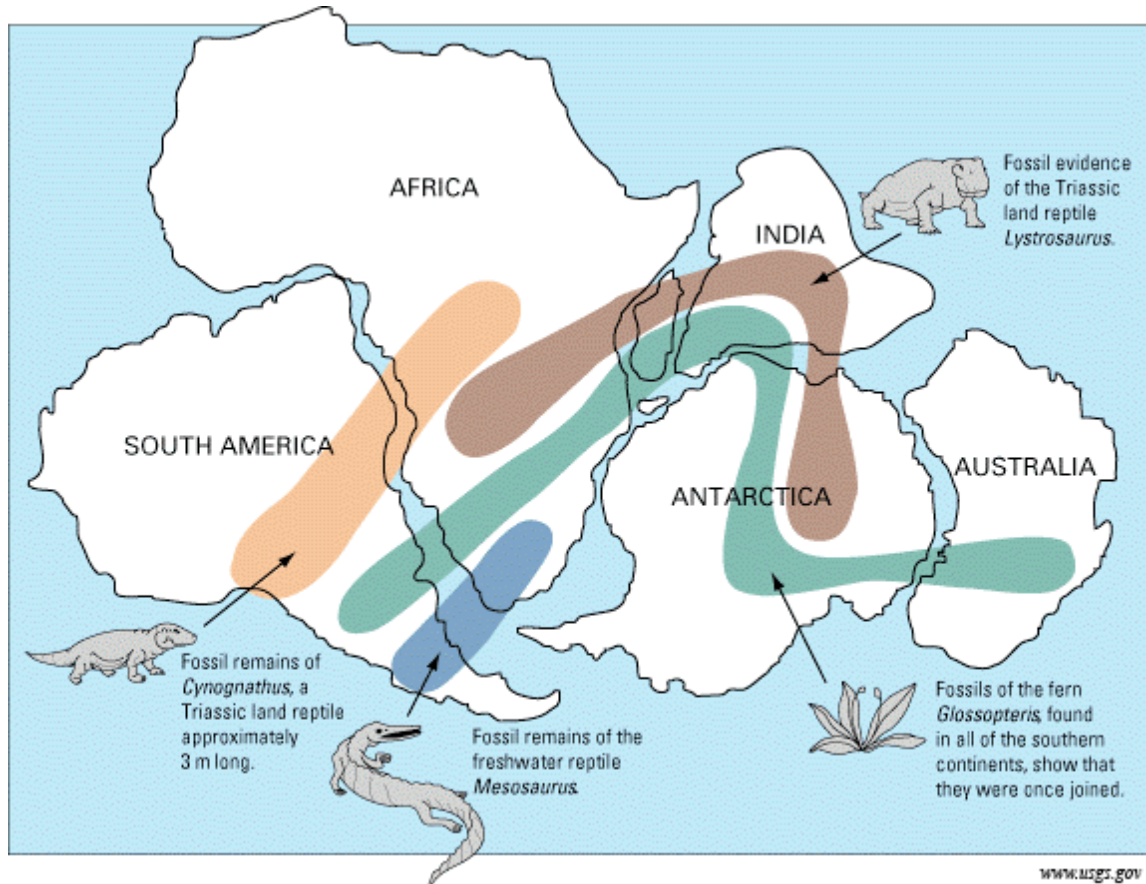
- A. continental-continental
- B. oceanic-continental
- C. oceanic-oceanic
- D. transform-ridge

78. Who first proposed the theory of continental drift?

- A. Hess
- B. Wilson
- C. Pangaea
- D. Wegener



Fossils of the freshwater reptile *Mesosaurus* have been found only in South America and Africa. Distribution of these fossils can be seen in the diagram below.



79. Why do scientists interpret this as evidence for continental drift?
- A. *Mesosaurus* could only inhabit lands in the southern hemisphere.
  - B. Being a reptile, *Mesosaurus* could only survive in tropical climates.
  - C. Paleoglaciatic evidence indicates that Mesosaurs became extinct in the last ice age.
  - D. Being a freshwater animal, *Mesosaurus* could not have crossed the open ocean between the two continents.



80. Rift eruptions like the one pictured here can release enormous amounts of lava. Where do such eruptions occur?
- A. at hot spots
  - B. near subduction zones
  - C. along spreading ridges
  - D. at transform boundaries

# BC Science 10

# Practice Exam B KEY

Question	Answer	Curriculum			Textbook
		Organizer	Sub-Organizer	Cognitive Level	
001	B	B	1a	K	1.1, pg 9
002	D	B	1d	K	1.2, pg 41
003	C	B	1d	HM	1.2, pg 37
004	D	B	1h	U&A	1.1, pg 13
005	B	B	1b	HM	1.1, pg 16, 17, 20-28
006	A	B	1a	K	1.2, pg 36
007	C	B	1g	U&A	1.1, pg 37
008	B	B	1f	U&A	2.1, pg 60
009	C	B	1f	U&A	2.1, pg 60
010	B	B	1f	U&A	1.2, pg 40
011	D	B	1f	K	1.2, pg 42
012	D	B	1f	U&A	1.2, pg 46
013	A	B	1f	K	2.1, pg 64
014	B	B	1f	U&A	2.1, pg 64
015	C	B	1g	K	2.2, pg 73
016	A	B	1g	U&A	2.2, pg 77
017	D	B	1g	U&A	2.2, pg 83
018	B	B	1g	K	2.2, pg 81
019	A	B	2d	U&A	2.3, pg 97
020	A	B	3b	K	3.1, pg 114
021	A	C	1a	K	4.1, pg 171
022	A	C	1c	U&A	4.1, pg 173
023	C	C	1c	U&A	4.1, pg 178
024	D	C	1f	K	4.1, pg 179
025	B	C	1g	K	4.1, pg 176
026	A	C	1b	U&A	4.1, pg 177
027	D	C	2g	U&A	4.2, pg 193
028	D	C	2c	K	5.1, pg 225, 227, 235
029	A	C	2e	K	4.1, pg 171
030	B	C	2a	HM	5.1, pg 222, 227
031	C	C	2e	HM	4.1, pg 171
032	B	C	2f	K	4.2, pg 186
033	A	C	2f	K	4.2, pg 189
034	D	C	3c	K	5.3, pg 246
035	A	C	2e	K	5.2, pg 237
036	B	C	4d	K	6.1, pg 258
037	B	C	4c	HM	6.1, pg 206, 262
038	C	C	4d	U&A	6.1, pg 207, 264
039	D	C	4e	U&A	6.2, pg 272
040	A	C	4a	U&A	4.3, pg 205

Question	Answer	Curriculum			Textbook
		Organizer	Sub-Organizer	Cognitive Level	
041	B	C	5a	U&A	7.1, pg 289
042	B	C	5b	U&A	7.1, pg 294
043	C	C	5f	U&A	7.3, pg 321
044	A	C	5d	U&A	7.2, pg 305
045	C	C	5c	HM	7.3, pg 314
046	C	C	6a	K	8.1, pg 348
047	A	C	6c	K	8.1, pg 350
048	A	C	6b	U&A	8.1, pg 353
049	B	C	6c	U&A	8.2, pg 365
050	D	C	6b	U&A	8.1, pg 350
051	A	C	6b	U&A	8.1, pg 365
052	D	C	6a	K	8.1, pg 348
053	A	C	7a	U&A	9.1, pg 385
054	C	C	7b	K	9.1, pg 382
055	C	C	7c	K	9.1, pg 382
056	B	C	7b	U&A	9.1, pg 385
057	A	C	7c	K	9.2, pg 394
058	D	C	7c	U&A	9.2, pg 396
059	A	C	7c	HM	9.2, pg 397
060	C	C	7c	HM	9.2, pg 400
061	B	D	1a	U&A	10.1, pg 426-427
062	D	D	1b	K	10.1, pg 427
063	B	D	1c	K	10.2, pg 431
064	C	D	2a	K	10.2, pg 444
065	A	D	2b	U&A	10.2, pg 448
066	B	D	2c	U&A	10.2, pg 449
067	A	D	2c	HM	10.2, pg 450
068	C	D	2c	U&A	10.2, pg 454
069	C	D	3b	K	11.2, pg 484
070	D	D	3c	K	11.2, pg 490
071	D	D	4b	K	12.2, pg 520
072	A	D	4d	K	12.2, pg 523
073	B	D	4c	K	12.2, pg 524
074	D	D	4a	U&A	12.1, pg 512
075	C	D	4b	HM	12.2, pg 531
076	D	D	5b	U&A	12.2, pg 512
077	A	D	4c	U&A	12.2, pg 524
078	D	D	5a	K	12.2, pg 506
079	D	D	5a	U&A	12.1, pg 508
080	C	D	5b	K	12.2, pg 534